An isosceles triangle is the one in which exactly two of its sides have the same length. A point in the plane is given by two coordinates, (x, y).

The following graph shows the idea.

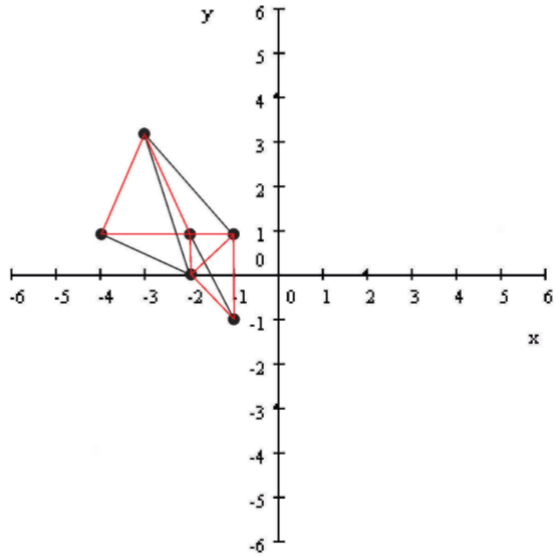

Figure 1: Six points, enough to form a few triangles

Your task is to create an algorithm that answers, given N points, how many isosceles triangles do they form?

Input

The input consists of several test cases. For each test case, the first line has an integer N, the number of points. The next N lines contain two integers, X_i and Y_i, indicating the points in the plane.

$1 \leq N \leq 100$; $-100 \leq X_i, Y_i \leq 100$

Output

For each test case, print a single line with an integer, representing the total number of isosceles triangles formed by the N points.

To avoid rounding errors, make sure that in your program two lengths L_a, L_b are considered equal if $|L_a - L_b| < 10^{-6}$.

Sample Input

```
6
-4 1
-3 3
-2 1
-2 0
-1 1
-1 -1
3
-4 1
-2 1
-1 1
```

Sample Output

```
4
0
```